



Fact Sheets and Information Papers

Disposal Guidance for Pipette Tips and Needles Used in a Laboratory Setting

March 2005

This fact sheet addresses determining the proper disposal methods for plastic pipette tips and metal needles used in laboratory procedures. Proper disposal will depend upon the usage of these items and local regulations.

Plastic Pipette Tips. Plastic pipette tips are not shaped in a manner that would lead to accidental scratching or breaking of the skin and should not be treated as sharps. [State of Maryland regulations define sharps as: *"a syringe, needle, surgical instrument, or other article that is capable of cutting or puncturing human skin."* (COMAR 26.13.11.02). Individual state definitions may vary.] A determined effort or extremely unlikely accident would be required to cause a skin injury from this object. A sharpened #2 pencil poses a greater risk of skin damage in comparison to the plastic pipette tips.

Plastic pipette tips are used for dispensing a variety of laboratory solutions. Once used, the discarded plastic pipette tips are empty, and are suitable for disposal with other laboratory solid waste (i.e., *regular trash*). Even if the solution dispensed would be regulated as a RCRA hazardous waste, the pipettes would meet the definition of empty containers and would not be subject to management as hazardous waste under Federal Regulations (40 CFR 261.7).

The infection control officer at the laboratory or servicing medical treatment facility should examine the handling of plastic pipettes used for infectious solutions. For the majority of solutions, disposal as solid waste is recommended. Pipettes that have been used for highly infectious material such as isolation CDC Risk Group IV waste (includes pox viruses and arboviruses) should be handled in the same manner as all other CDC Risk Group IV waste. A suitable collection container for these items would include a glass or plastic container such as a 1L beaker. At the end of each workday, the beaker should be emptied into the regular trash. The use of a medical waste sharps container is not required or appropriate.

Needles and Syringes. Needles are used for a variety of purposes in a laboratory setting including introduction of solvents into analytical equipment via analytical syringes and manipulation of tissue samples. Due to the characteristics of steel needles, there is a risk of a puncture or "needle stick" injury. Good work practices will reduce the chances of a needle stick for laboratory personnel. Disposal of the needles requires protecting not only the laboratory personnel, but also personnel who may come into contact with the waste during transport and final disposal. Most states consider needles and syringes, both used and unused, as medical waste under the category of sharps. The use of sharps containers for disposal of needles is highly recommended for all needles. If the laboratory does not already have procedures in place to handle sharps disposal, the servicing medical treatment facility can often provide assistance. A Summary Table is provided below

Waste	RCRA Hazardous Waste?	Sharp?	Recommended Collection Method	Recommended Disposal Method
Plastic pipette tips used for solvents (hazardous or non-hazardous)	N	N	beaker or plastic container	solid waste
Plastic pipette tips used for biological materials (non-isolation waste)	N	N	beaker or plastic container	solid waste
Plastic pipette tips used for isolation waste	N	N	follow local policy set by infection control officer	follow local policy set by infection control officer
Steel needles, IV syringes	N	Y	sharps container	medical waste disposal

*Hazardous and Medical Waste Program, Ms. Dominique Lowrance-Snyder
5158 Blackhawk Road, ATTN: MCHB-TS-EHM
Aberdeen Proving Ground, MD 21010-5403
(410) 436-3651, DSN 584-3651*

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